



NOTES:

- THIS IS A ULTRA - HIGH - VACUUM ASSEMBLY (UHV). KEEP THE UHV PARTS CLEAN DURING ASSEMBLY, AND AND WRAP UP FOR PACKING WITH ALUMINUM FOIL.
- WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
A) CIMCOOL 5 STAR 49
B) TRIM SOL
- THIS IS A UHV PART, ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE PART MUST GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.
- THE ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2X 10⁻¹⁰ STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS:
ALCATEL ASM-110TCL
VARIAN NCR 925 OR 936
VEECO MS-9, MS-90 OR MS-18
Du PONT CEC 24-120B
CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.
FINAL TEST WILL CONSIST OF SURROUNDING THE CHAMBER (BAGGING) WITH HELIUM. THE CHAMBER WILL BE REJECTED IF A 2% DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
- DIMENSIONS IN [] ARE MILLIMETERS AND FOR REF. ONLY

REF. SOURCE

1. MCD VACUUM PRODUCTS CORP.
23842 CABOT BLVD.
HAYWARD, CA. 94545-1651
1-800-443-8817
FAX: 510-887-0626

2. STANDARD BELLOWS CO.
375 ELLA T. GRASSO TURNPIKE
WINDSOR LOCKS, CT. 06096
1-203-623-2307
FAX: 203-623-0398

5	#110008	2.75 O.D. NONROTATABLE VACUUM FLANGE	SST	1
4		1.75 O.D. X .065 W. X 2.02 LG. TUBING	SST	1
3	#249-153-13-EE	WELDED BELLOW	SST	1
2		1.75 O.D. X .065 W. X 1.56 LG. TUBING	SST	1
1	#100015	3.38 O.D. ROTATABLE VACUUM FLANGE	SST	1

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
5	#110008	2.75 O.D. NONROTATABLE VACUUM FLANGE	SST	1
4		1.75 O.D. X .065 W. X 2.02 LG. TUBING	SST	1
3	#249-153-13-EE	WELDED BELLOW	SST	1
2		1.75 O.D. X .065 W. X 1.56 LG. TUBING	SST	1
1	#100015	3.38 O.D. ROTATABLE VACUUM FLANGE	SST	1

LOG NUMBER	DATE	CHIEF DESIGN ENGINEER	DATE	TITLE
A2187900	12/7/94	D. SHU	3/5/95	ADVANCED PHOTON SOURCE
DESIGNER	DATE	PROJECT MGR.	DATE	
W. YUN	2/23/95	T.M. KUZAY	3/6/95	
DESIGNER	DATE	APPROVED/RELEASED	DATE	
D. SHU/FUHRMANN	3/5/95			
RESPONSIBLE ENGINEER	DATE			
D. SHU	3/5/95			

SCALE	SHEET	SIZE	DRAWING NUMBER
1:1	1:1	D	P4105091202-300700-00